1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Previously Presented) Method for producing a catheter with improved electrical properties, the method comprising the following steps:

providing a catheter which comprises at least one ablation or mapping electrode,

providing a vessel with a solution which contains ions whose motion can be influenced by an electrical field,

immersing the at least one ablation or mapping electrode in the solution,

providing a further electrode in contact with the solution,

treating the at least one ablation or mapping electrode, by applying an electric voltage between the ablation or mapping electrode.

11. (Previously Presented) Method according to Claim 10, characterized in that the further electrode is an electrode of the catheter.

12. (Previously Presented) Method according to Claim 10, characterized in that the further electrode is an external electrode.

13. (Previously Presented) Method according to Claim 10, characterized in that the solution contains halogen ions.

14. (Previously Presented) Method according to Claim 13, characterized in that the solution contains chlorine ions.

15. (Previously Presented) Method according to Claim 10, characterized in that the solution contains NaCl in a range from 0.1 to 100 g/l.

16. (Previously Presented) Method according to Claim 15, characterized in that the solution contains NaCl in an amount of approximately 7 g/l.

17. (Previously Presented) Method according to Claim 10, wherein the solution contains ions of a metal salt.

18. (Previously Presented) Method according to Claim 10, characterized in that the applied voltage is an AC voltage.

19. (Previously Presented) Method according to Claim 18, characterized in that the applied AC voltage contains components which have a frequency of more than 0.01 Hz and less than 10 kHz.

20. (Previously Presented) Method according to Claim 18, characterized in that the applied AC voltage contains components which are in a frequency range from 1 to 100 Hz.

21. (Previously Presented) Method according to Claim 10, characterized in that the applied AC voltage is in a range from 0.1 to 100 V_{eff}.

22. (Previously Presented) Method according to Claim 20, characterized in that the applied AC voltage is in a range from 1 to 10 V_{eff}.

23. (Previously Presented) Method according to Claim 20, characterized in that the applied AC voltage is at 3 to 7 V_{eff}.

24. (Previously Presented) Method according to Claim 10, characterized in that an AC current which generates an AC voltage is impressed on the ablation or mapping electrode and the further electrode.

25. (Previously Presented) Method according to Claim 24, characterized in that the AC voltage has, per ablation or mapping electrode, a current intensity of from 1 mA_{eff} to 1 A_{eff}.

26. Cancelled

27. (Previously Presented) Apparatus for catheter treatment comprising:

a vessel for holding an electrolytic solution and regions of the catheter,

an electrolytic solution in the vessel,

an ablation or mapping electrode,

wherein the ablation or mapping electrode can be wetted by the electrolyte during conducting of the catheter treatment,

a voltage-generating or current-generating unit, and

a connection device for connecting at least one ablation or mapping electrode of the catheter and a further electrode to the voltage-generating or current-generating unit, wherein the voltage-generating or current-generating unit comprises an internal unit mechanically connected to the vessel.

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Previously Presented) Catheter for the ablation of biological, in particular of animal or human tissue, including ablation of human myocardial tissue, said catheter comprising at least

one ablation or mapping electrode, producible, in particular, being produced with a method according to one of claims 10 to 25.

33. (Previously Presented) Catheter according to claim 32, characterized in that said ablation or mapping electrode has a reduced number of electrical interference centres which generate microscopic electric potential differences, field strength maxima or microscopically different reaction capabilities at the electrode surface.

34. (Previously Presented) Catheter according to claim 32, characterized in that the surface of the at least one ablation or mapping electrode has a rounded surface structure whose edges or tips have a radius of curvature of more than 10nm.

35. (Previously Presented) Catheter according to claim 32, characterized in that the surface of the at least one ablation or mapping electrode is coated at least partially with elementary platinum.

36. (Previously Presented) Catheter according to claim 32, characterized in that the at least one ablation or mapping electrode comprises a metal whose atoms are present at the surface in a fashion bound at least partially atomically or in an amorphous manner and in an essentially non-crystalline manner.

37. (Previously Presented) Catheter according to claim 32, characterized in that at least one ablation or mapping electrode comprises platinum.

38. (Previously Presented) Catheter according to claim 32, characterized in that the surface of the at least one ablation or mapping electrode comprises regions with deposited metal present essentially in an amorphous manner or atomically.